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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/314,034	05/18/99	SCHULZ M	54565USA4A

IM52/0926

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EXAMINER	
GRENDZYNSKI,M	
ART UNIT	**PAPER NUMBER**
1774	10

DATE MAILED: 09/26/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/314,034	Applicant(s) SCHULZ ET AL.	
	Examiner Michael E. Grendzynski	Art Unit 1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *13 August 2001* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) *22-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *22-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *8* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 22-29 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over of either Wallace (4889765) or Tyvek® Product Bulletin in view of either Fryberg (WO 95/28285). Applicants claim a non-woven macroporous substrate with a coating thereon comprising a water-soluble multivalent metal salt and a surfactant. Both Wallace and the Tyvek® Product Bulletin disclose that spunbonded polyolefin substrates (e.g., Tyvek®) are not inherently receptive to aqueous ink jet inks. *See* col. 1, ll 5-30 and Product Bulletin, respectively. Wallace additionally discloses that images placed on such materials are not necessarily rub resistant. See col. 1, ll 17-23. Both Wallace and the Tyvek® Product Bulletin, moreover, disclose that it is necessary to coat these substrates with an ink-receptive coating. *See* col. 1, ll 5-30 and Product Bulletin, respectively. Fryberg discloses a recording sheet comprising a (1) support and (2) an ink-receptive coating composition thereon. *See* Abstract. Fryberg does not limit the type of material that may be used, teaching that any known supports are suitable. *See* pp 14-15. Fryberg also teaches an ink-receptive coating comprising a multivalent metal salt (i.e., a Group IIIb metal salt, which includes magnesium sulfate and aluminum sulfate) and a surfactant (e.g., a cationic, anionic or nonionic). See pp 9-10 and pp 15-17. Fryberg teaches that its ink-receptive coating composition provides recording materials having improved handling (rub resistance, etc). *See* p 1. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the Fryberg ink-receptive coating on a

spunbonded polyolefin support such as Tyvek®, motivated by the desire of providing a spunbonded polyolefin support with improved ink-receptive and ink retention properties, as disclosed by Fryberg on p 1.

With specific regard to claim 25, the experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. *In re Aller*, 105 USPQ 233. A prima facie case of obviousness may be rebutted where the results of the optimizing variable, which is known to be result-effective, are unexpectedly good. *In re Boesch and Slaney*, 205 USPQ 215. To date, this burden has not been sustained.

With particular regard to claim 27, Fryberg discloses that its surfactant comprises a fluorine-based surfactant. *See* p 16.

With particular regard to claim 28, Fryberg further discloses that its ink-receptive coating comprises an opacifying pigment. *See* p 13.

3. Claims 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Wallace or the Tyvek Product Bulletin in view of Fryberg, as applied to claims 22-29 and 32, above, and further in view of Fukunishi (US 5958547). Fukunishi teaches that sodium dioctyl sulfosuccinate is a known surfactants in the art, and may be used interchangeably with other nonionic anionic surfactants such as polyoxyethylenes (which is included in the nonionic surfactants disclosed by Fryberg). *See* col. 4-5.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hasegawa (US 4954395 and 5027131) are cited for the proposition that sodium dioctyl sulfosuccinate is a known anionic surfactant in the art.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael E. Grendzynski whose telephone number is 703-305-0553. The examiner can normally be reached on Monday-Friday, 9:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 703-308-2376. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-5408 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3599.

BRUCE H. HESS
PRIMARY EXAMINER

Michael E. Grendzynski
Assistant Examiner
September 24, 2001